



A.D. 1852 N^o 14,071.

S P E C I F I C A T I O N

OF

WILLIAM HENRY DUPRÉ

AND

CLEMENT LE SUEUR.

APPARATUS FOR VENTILATING
CHIMNEYS, &c.

L O N D O N :

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Apparatus for Ventilating Chimneys, &c.

DUPRÉ & LE SUEUR'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, we, **WILLIAM HENRY DUPRE** and **CLEMENT LE SUEUR**, of Jersey, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent under the Great Seal of the United Kingdom of Great Britain and Ireland, bearing date at Westminster, the Seventeenth day of April, in the fifteenth year of Her reign, did give and grant unto us, the said William Henry Dupre and Clement Le Sueur, our exors, admors, and assigns, Her especial licence, full power, sole privilege and authority, that we, the said William Henry Dupre and Clement Le Sueur, our exors, admors, and assigns, and such others as we, the said William Henry Dupré and Clement Le Sueur, our exors, admors, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term of years therein mentioned, should and lawfully might make, use, exercise, and vend, within that part of the United Kingdom of Great Britain and Ireland called England, Your Dominion of Wales, and Town of Berwick upon Tweed, and also in the Islands of Guernsey, Jersey, Alderney, Sark, and Man, and in all Your Majesty's Colonies and Plantations abroad, our Invention of "**CERTAIN IMPROVEMENTS IN CERTAIN APPARATUS OR APPARATUSES FOR PREVENTING SMOKY CHIMNIES, APPLICABLE TO OTHER PURPOSES OF VENTILATION;**" in which said Letters Patent there is contained a proviso that we, the said William Henry Dupre and Clement Le Sueur, shall particularly describe and ascertain the nature of our said Invention, and in what manner the same is to be performed, by an

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instrument in writing under our hands and seals, to be enrolled in Her said Majesty's High Court of Chancery within six calendar months next and immediately after the date of the said in part recited Letters Patent, as, reference being thereunto had, will more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, we, the said William Henry Dupre and Clement Le Sueur, do hereby declare the nature of our Invention, and the manner in which the same is to be performed, is particularly described and ascertained in and by the following instrument in writing, reference being had to the figures and letters therein contained, and to the Drawings thereunto annexed (that is to say) :—

Our Invention, which relates, firstly, to improvements in apparatus or apparatuses for preventing smoky chimnies, consists in the application of certain mechanical contrivances for facilitating the discharge or escape of smoke from the tops of chimnies, shafts, or flues, the said contrivances being also applicable for discharging vitiated or impure atmosphere from close or confined apartments in dwelling or other houses. Our Invention, which relates, secondly, to certain apparatus applicable for the purpose of ventilation, consists in a mode or modes of constructing valves for the purpose of draught openings or ventilaters, to be used in roofs, shafts, or otherwise, as herein-after more fully described; but before we proceed to describe more definitely the leading characteristic features of our said Invention, we would first briefly observe that by our improvements we are enabled to prevent the adverse currents of air (which oppose the free circulation of draught outwards, from passing down the chimney flue, shaft, or otherwise), and to effect a more rapid exit or escape for the smoke, and a better system of ventilation than has been heretofore attained. But in order that these our said improvements may be more readily understood and carried into effect, we will now proceed to describe by the aid of the annexed Drawings the system pursued by us, that is to say:—Fig. 1 of the accompanying Drawings represents a front elevation of a windguard or chimney cowl; Fig. 2, a vertical section; Fig. 3, a transverse vertical section, taken through the dotted lines A, A; Fig. 4, a top or plan view of the cap or crown; Fig. 5, plan of the stem or base; Fig. 6, a transverse horizontal section through the line B, B. The same letters in each Figure denote similar corresponding parts. A, A, is the stem or base, slightly tapering towards the top; B, B, draught cylinder or hoop; C, C, conical dome or draught conductor; D, D, projecting spiral or curvilinear blades surrounding the conical dome for the purpose of catching and deflecting the wind downwards through the passages or channels E, E, which open into the draught cylinder or hoop, so that at all points the effect of of the wind upon the conical dome

FIG. 4.

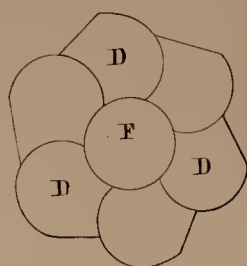


FIG. 1.

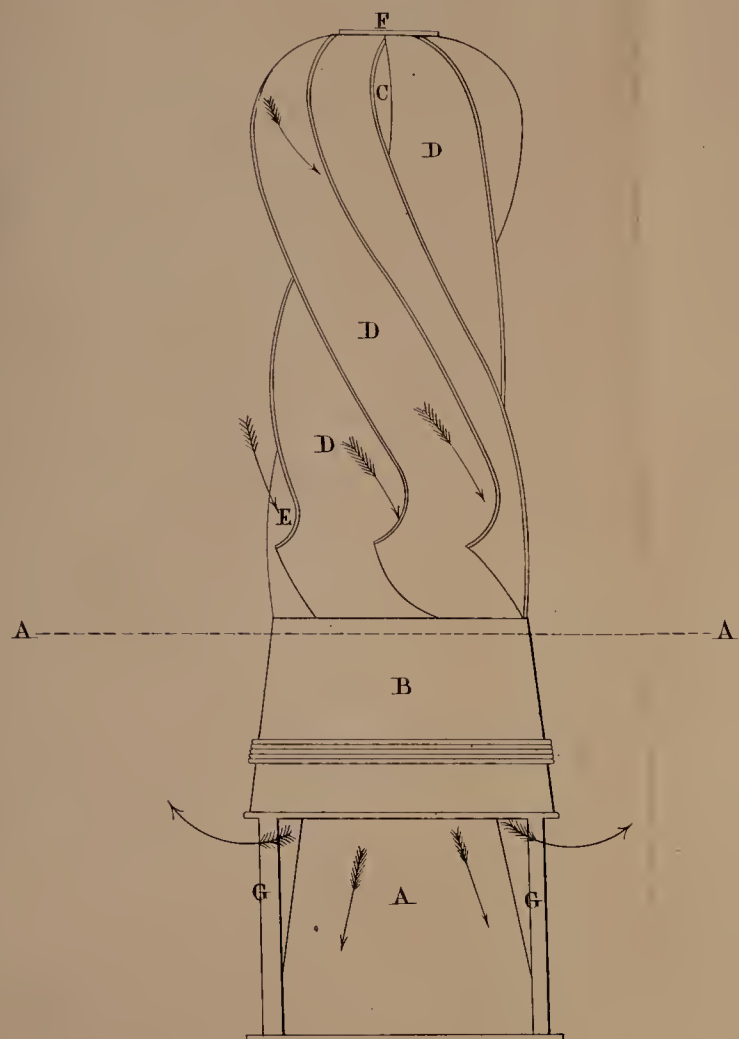


FIG. 2.

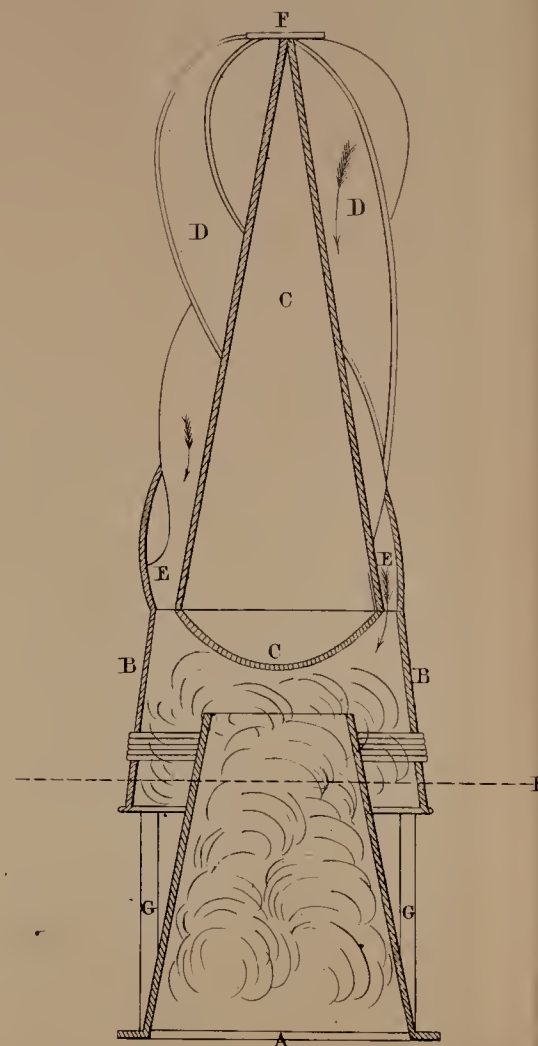


FIG. 3.

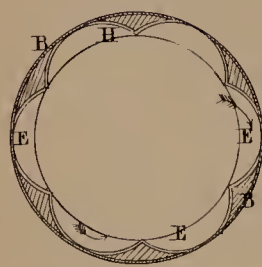


FIG. 6.

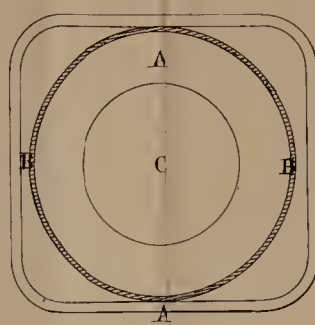


FIG. 5.

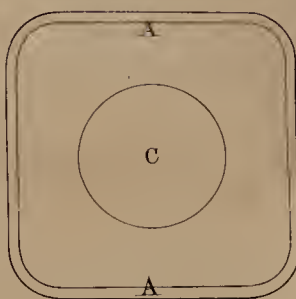


FIG. 10.

FIG. 11.

FIG. 7.

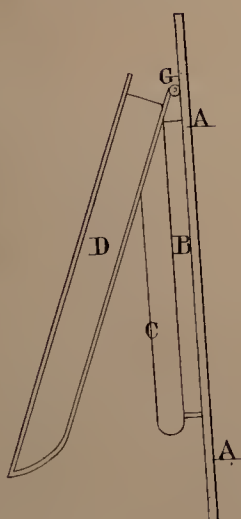


FIG. 8.

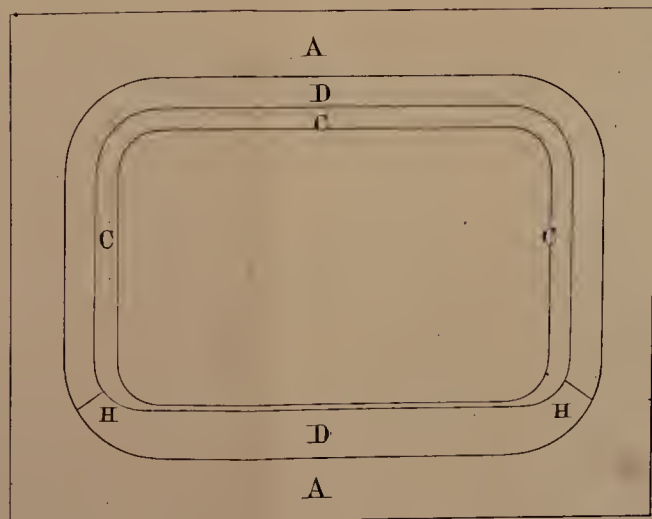


FIG. 9.

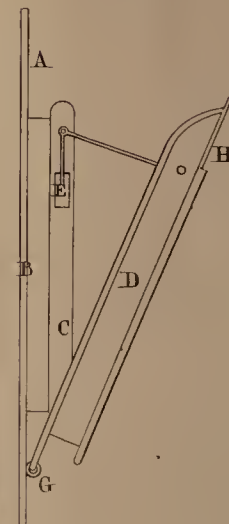
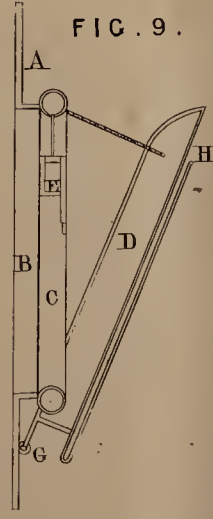


FIG. 12.

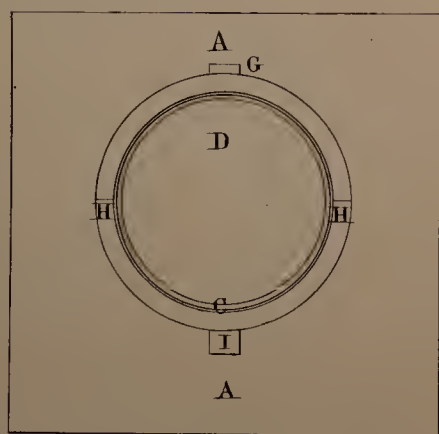


FIG. 13.

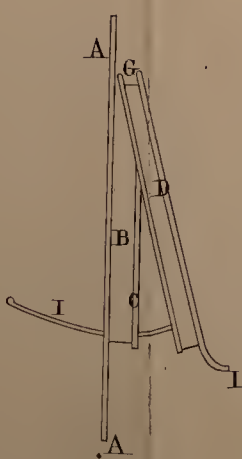


FIG. 14.

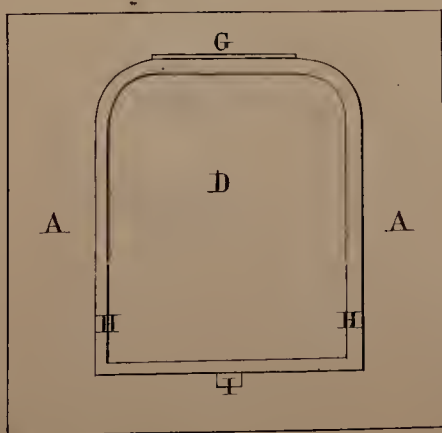


FIG. 15.

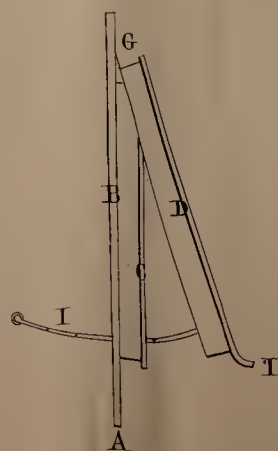


FIG. 16.

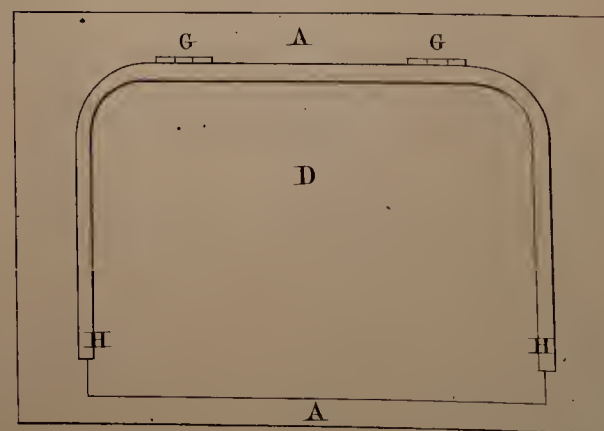
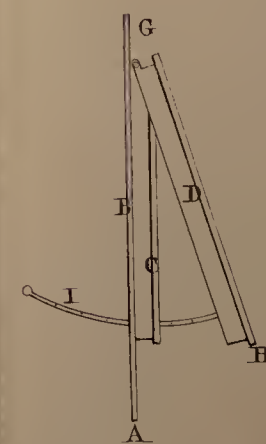
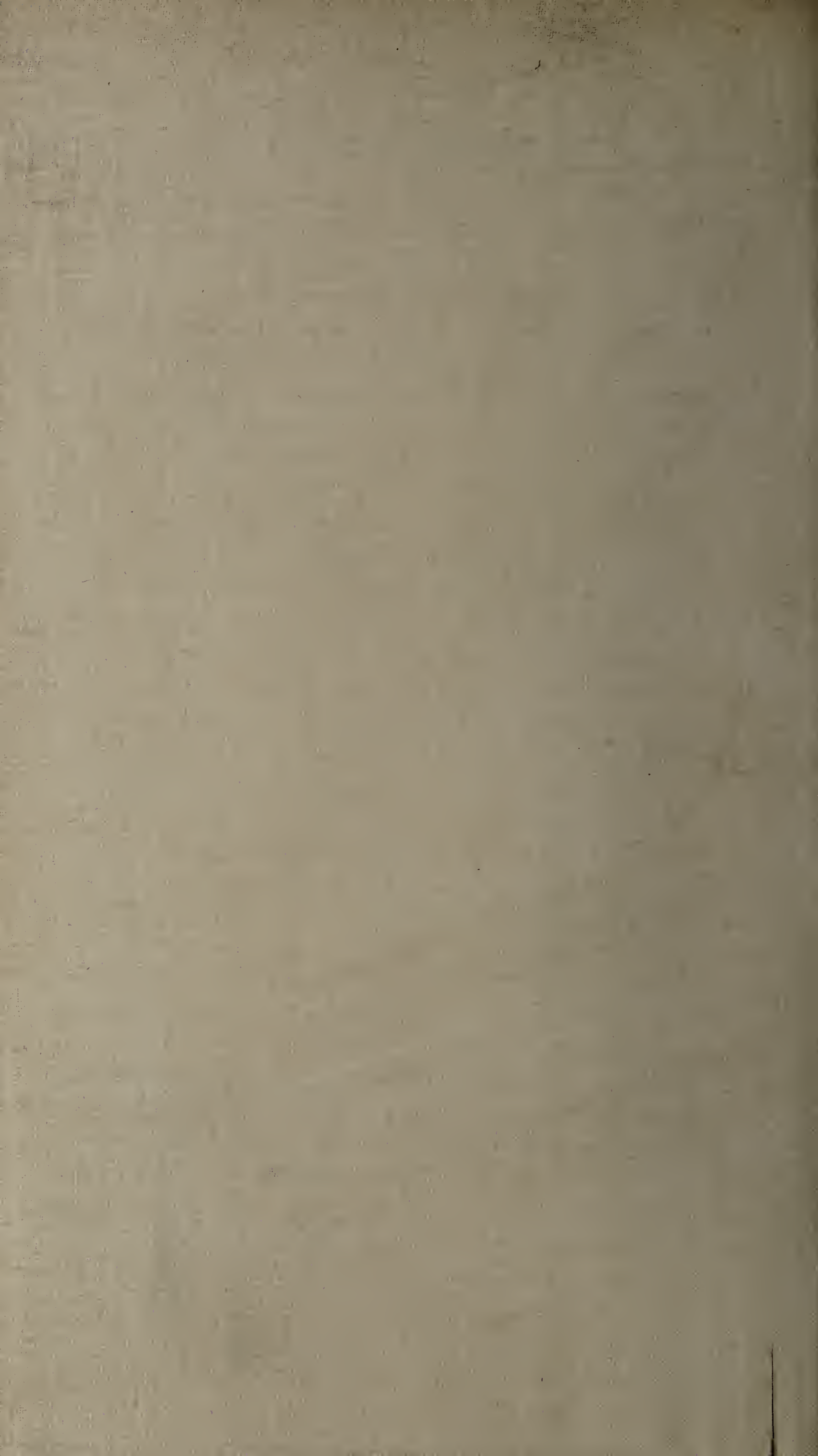


FIG. 17.



The enrolled drawing, is colored.

Melby & Sons, lith.



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will be to direct the smoke downwards out of the lower end of the draught cylinder, and to prevent its escape upwards through the curvilinear openings E, E ; F, crown stud ; G, G, connecting stay rods, for attaching the stem to the upper portion of the windguard. In the operation of our improved wind-
5 guard, it will be manifest, by reference to the Drawings, that the constant downward deflection of the wind produced by the disposition of the spiral or curvilinear blades will cause the smoke to descend and pass out of the lower circular opening at the bottom of the draught cylinder or hoop into the open air, as in manner shown, whereby the passages between the blades are kept
10 free from the accumulation of soot. Our improvements in ventilation, having reference to the method of regulating the draught in chimnies, flues, and shafts of houses, or otherwise, have also for their object another advantage in enabling light as well as air to be admitted to any apartment in which they are employed, by the insertion of glass or other transparent substances, as circum-
15 stances may require, in place of metallic or other opaque substances in the door or opening valve. Figs. 7 and 8 of the annexed Drawings represent a front or side elevation of one of our improved valves, applicable to the general purpose of ventilation as aforesaid. Fig. 9, 10, and 11, represent front, side, and sectional views of a similar valve, having the addition of adjusting balance
20 weights to be used in connection therewith, for the purpose of closing the valve door ; the remaining Figures 12, 13, 14, 15, 16, and 17, shewing different modifications of the same principle. In each Figure, A, A, is a wall or fixing plate ; B, B, a raised edge or rim, turned up from the plate A, A, in manner shown ; C, C, a pipe or hollow bead, secured upon the projecting rim or
25 raised edge aforesaid, against which pipe or hollow bead the cover of the valve or door shuts, leaving a vacant space between the rim of the valve or door and the raised edge, thereby preventing them from coming into such contiguity as to collect any moisture by the exercise of capillary attraction ; D, D, valve door or cover ; E, E, counteracting balance weights, suspended by means of a
30 cord acting within the hollow tube in a vertical direction, so as to retain the valve open in any position ; G, G, common hinges ; H, H, slot or groove, to admit glass or metal, as aforesaid ; I, I, adjusting catch or fall, for regulating the opening of the valves in cases where the pipe or hollow bead and adjusting weights before mentioned are not employed.

35 Having now described the nature of this our said Invention, and the manner in which the same is to be carried into effect, we would have it understood that we do not confine ourselves to the precise details herein-before given, so long as the general character thereof is retained ; but we claim as new and of this our said Invention, firstly, the mode above described of constructing wind-

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guards with curvilinear or otherwise formed ribs or blades for catching and deflecting the wind downwards; secondly, the opening of the passages between the said ribs or blades into the hoop or draught cylinder in conjunction with the conical dome; thirdly, the raised edge of the wall or fixing plate, or to the valve door or cover for the purposes above described; fifthly, the action of the balance weights within the pipe or hollow bead, as above described. 5

In witness whereof, we, the said William Henry Dupré and Clement Le Sueur, have hereunto set our hands and seals, this Twelfth day of October, in the year of our Lord One thousand eight hundred and fifty-two. 10

WILLIAM HENNARY (L.S.) DUPRÉ.
CLEMENT (L.S.) LE SUEUR.

Taken and acknowledged by William Henry Dupré and Clement Le Sueur, parties hereto, at my Office, in the Town of St. Heliers, Island of Jersey, this 12th day of October, 1852, before me, 15

PHIL. LE GALLAIS,
Magistrate,
Jersey. 20

Enrolled the Sixteenth day of October, in the year of our Lord One thousand eight hundred and fifty-two.

LONDON:
Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1854.